

## ABSTRACT

[0065] A system and method are disclosed which allow for manipulation of nanotubes. More specifically, embodiments of the present invention enable various types of manipulation of nanotubes utilizing an organic material that is presented to the nanotubes. For example, a preferred embodiment of the present invention enables cutting of nanotubes into shortened nanotubes. Other types of nanotube manipulation that are enabled by embodiments of the present invention, include dispersing nanotubes, enabling dissolution of nanotubes, and noncovalently functionalizing nanotubes. The organic material utilized in manipulating nanotubes preferably comprises a soft organic material, soluble organic material, and/or an organic material that acts as a dispersing reagent for dispersing nanotubes. In a preferred embodiment, the organic material utilized for manipulating nanotubes comprises cyclodextrin.

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